

AMENDMENTS

In the claims:

Claims 1 to 10 (**Canceled**).

11. **(Currently Amended)** A method of inserting an exogenous nucleic acid into the genome of a non-human and non-Drosophilidae animal, said method comprising:

introducing into said animal a P-element derived vector comprising said exogenous nucleic acid under conditions sufficient for transposition to occur, wherein said vector comprises a pair of P-element transposase recognized insertion sequences flanking a single transcriptionally active gene that comprises said exogenous nucleic acid;

whereby to insert said exogenous nucleic acid is inserted into said genome.

12. **(Currently Amended)** A method of inserting an exogenous nucleic acid into the genome of a non-Drosophilidae animal cell in vitro, said method comprising:

introducing into said cell animal a P-element derived vector according to Claim 1 under conditions sufficient for transposition to occur, wherein said vector comprises a pair of P-element transposase recognized insertion sequences flanking a single transcriptionally active gene that comprises said exogenous nucleic acid;

whereby to insert said exogenous nucleic acid is inserted into said genome.

13. **(Currently Amended)** The method according to Claim 12 Claim 11, wherein said vector comprises a transposase domain.

14. **(Currently Amended)** The method according to Claim 12 **Claim 11**, wherein said method further comprises introducing a second vector comprising a transposase domain into said animal.

15. **(Currently Amended)** The method according to Claim 12 **Claim 11**, wherein said exogenous nucleic acid ranges in length from about 50 to 150,000 bp.

16. **(Currently Amended)** The method according to Claim 12 **Claim 11**, wherein said target animal is a vertebrate.

17. **(Currently Amended)** The method according to Claim 12 **Claim 16**, wherein said vertebrate animal is a mammalian animal.

18. **(Currently Amended)** The method according to Claim 12 **Claim 17**, wherein said mammalian animal is a rodent.

Claims 19 to 26. **(Canceled)**

27. **(Currently Amended)** A non-human and non-Drosophilidae animal or cells derived from said animal that has a pair of P element transposase recognized insertion sequences integrated into the genome.

28. **(Original)** The animal or cells according to Claim 27, wherein said animal is a vertebrate or said cells are vertebrate cells.

29. (Original) The animal or cells according to Claim 28, wherein said animal is a mammal or said cells are mammalian cells.

30. (Original) The animal or cells according to Claim 29, wherein said animal is a rodent or said cells are rodent cells.

31. (Currently Amended) A non-human and non-Drosophilidae animal or cells derived from said animal that have a pair of P element transposase recognized 31bp insertion sequences integrated into the genome.

32. (Original) The animal or cells according to Claim 31, wherein said animal is a vertebrate or said cells are vertebrate cells.

33. (Original) The animal or cells according to Claim 32, wherein said animal is a mammal or said cells are mammalian cells.

34. (Original) The animal or cells according to Claim 33, wherein said animal is a rodent or said cells are rodent cells.

35. (New) The method according to Claim 12, wherein said vector comprises a transposase domain.

36. (New) The method according to Claim 12, wherein said method further comprises introducing a second vector comprising a transposase domain into said cell.

37. (New) The method according to Claim 12, wherein said exogenous nucleic acid ranges in length from about 50 to 150,000 bp.

38. (New) The method according to Claim 12, wherein said cell is a vertebrate cell.

39. (New) The method according to Claim 38, wherein said vertebrate cell is a mammalian cell.

40. (New) The method according to Claim 39, wherein said mammalian cell is a rodent cell.

41. (New) The method according to Claim 39, wherein said mammalian cell is a human cell.